#### Work Order ID 54585

Page 1

December 14, 2009 1:10:45 PM

Item ID:

D205-634-041

Accept

Setup Start

Stop

**Revision ID:** 

Item Name:

Replacement Skidtube

Start Date:

14/12/2009

Start Oxy: 1.00 Req'o. Sty: 1.00

Cust It an ID:

Customer:

Reference:

Approvals:

Process Plan:

Date: 9/2/

Tooling:

Date:

Run St

Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID Operation Description

**Revision Nbr** 

Set Up/ Run Hours Draw Number Draw Plan Rev. Code Accept Qty

Reject Re Qty No

Reject Insp. Number Stamp

Draw Nbr

D2580

Required Date: 21/12/2009

Rev D

100

DOCUMENT CONTROL

Memo

0.00

0.00

Document Control

Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG002

Pl 59-12-14

110



CNC Delta 100 Bender

BENDING MACHINE - SKIDTUBES

Memo

0.00

0.00

1-Bend as per program D2580.C on CNC Bender and Folio FT009

2-Cut tubes as per Dwg. D2580

49/12/17

#### **Dart Aerospace Ltd WORK ORDER CHANGES** W/O: Approval **Approval STEP** DATE PROCEDURE CHANGE By Qtv Chief Eng / Date QC Inspector Prod Mar Part No: \_\_\_\_\_\_ PAR #: \_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_ Date: \_\_\_\_ Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_ Date: \_\_\_\_\_ WORK ORDER NON-CONFORMANCE (NCR) NCR: **Corrective Action** Section B **Description of NC** Verification **Approval Approval** DATE **STEP** Sign & Initial **Action Description** QC Inspector Section A Section C Chief Eng Date Chief Eng Chief Eng

Page 2

Item ID:

D205-634-041

Accept

Setup Start

Stop



**Revision ID:** 

Item Name:

Replacement Skidtube

**Start Date:** 

Reference:

14/12/2009

Start Qty: 1.09

Req'd Qty: 1.00



Cust Item ID: **Customer:** 

Required Date: 21/12/2009

Approvals:

Process Plan:

Date:

Tooling:

QC:

SPC (Y/N):

Date: Date:

Stop

Sequence ID/ Work Center ID Operation Description Set Up/ **Run Hours** 

0.00

120

Skidtubes

Skidtubes

Memo

0.00

1- Deburr ends

2- C'sink holes as per dwg without cutting fluid

3- Prepare tube for welding, remove alodine as required.

4- Scribe batch number insied aft end of tube.

130

OC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Run

Start



Draw Draw Rev. Number

Plan Code

Accept Qty

Reject Qty

Reject Number Stamp

BE 12/01/04

Quality Control

Dart Aerospace L	.td
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Dart Ae	rospace	Ltd			·			۲
W/O:			WO	RK ORDER CHANGE	S			Υ
DATE	STEP	PRO	OCEDURE CHAN	GE	Ву	Date Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Categ	ory:	NCR: Yes	No DQA:	Date: _	
	Re	esolution:	Disposition	·	QA: N/C Clo	sed:	Date: _	
NCR:			WORK ORDE	R NON-CONFORMA	NCE (NCR)	)		
		Description of NC		Corrective Action Section		Verification	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector

Page 3

December 14, 2009 1:10:45 PM

Required Date: 21/12/2009

Item ID: **Revision ID:**  D205-634-041

Accept



Setup Start

Stop



Item Name: **Start Date:** 

14/12/2009

Replacement Skidtube

Start Otv: 1.00

Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

0.00

0.00

Start Run

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID

140

Skidtubes

Skidtubes

Operation Description Set Up/ **Run Hours**  Draw Number Rev. Code

Accept Qty

Reject Qty

Reject Insp. Number Stamp

Memo

1-Weld step D2576 as per Dwg. D2580 and QSI\_004 A/R : Aluminum Rod

2-Prep per OSI 005 and weld crossbolt spacers D2579 as per Dwg. D2580, QSI

For D2579 spacers, weld one side, pass 3/8" drill; weld other side, pass 3/8" drill; A/READ Aluminum Rod

3-Grind welds as per Dwg D2580 Grind flush ridge made from bending

4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64", adjust stopper not to hit web. Deburr

5-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2580. Deburr holes

6-Drill pilot holes for aft cap using DT 8215Open holes to 0.208". Deburr

7-Drill pilot holes for Towring using DT8091, open to .640" and Deburr

BC 10/01/04
BC 10/01/04

W/O:			WORK ORDER (	CHANGES				······································
DATE	STEP	PF	OCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No	):	PAR #:	Fault Category:	NCR: Yes	No <b>DQ</b>	<b>A</b> :	Date: _	
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145.		Description of NC	Corrective Action Section B			Verification	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector
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December 14, 2009 1:10:45 PM

**Required Date: 21/12/2009** 

Item ID:

D205-634-041

Accept



Setup Start

Stop



**Revision ID:** 

Item Name:

Replacement Skidtube

**Start Date:** 

14/12/2009

Start Qty: 1.00 Req'd Qty: 1.00

Cust Item ID:

**Customer:** 

Reference:

Approvals:

**Process Plan:** 

Date:

Tooling:

Date:

Start Run

Date:

Set Up/

**Run Hours** 

SPC (Y/N):

Date:

Draw

Rev.

Stop

Sequence ID/ Work Center ID

150

Quality Control

Operation Description

QC10- Inspect visual per QSI004- ground welds

Memo

Number

Accept Plan Qty Code

Reject Qty

Reject Insp. Number Stamp



Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

Sidochi

170

HandFinish

Hand Finishing

Pressure Wash per QSI005 4.3

Memo

Memo

6L 10-01-11

#### **Dart Aerospace Ltd WORK ORDER CHANGES** W/O: Approval **Approval** DATE STEP PROCEDURE CHANGE By Date Qty Chief Eng / QC Inspector Prod Mar Part No: \_\_\_\_\_\_ PAR #: \_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_ Date: \_\_\_\_ WORK ORDER NON-CONFORMANCE (NCR) NCR: **Corrective Action** Section B **Description of NC** Verification **Approval Approval** DATE **STEP** Sign & **Action Description** Initial QC Inspector Section A Section C Chief Eng Date Chief Eng Chief Eng



December 14, 2009 1:10:45 PM

Required Date: 21/12/2009

Item ID:

D205-634-041

Accept



Date:

Draw

Rev.

Plan

Code

Setup Start



**Revision ID:** 

Item Name:

Replacement Skidtube

Start Late:

14/12/2009

Start Qty: 1.00

Req'd Qty: 1.00

**Cust Item ID:** 

**Customer:** 

Reference:

Approvals:

Process Plan:

Date:

Date:

Tooling:

SPC (Y/N):

Set Up/

0.00

Date:

Accept

Qty

Run

Stop

Reject

Qty

Reject

Stop



Number Stamp

Sequence ID/ Work Center ID

190

180

Powdercoat

**Powder Coating** 

Operation

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

M113170

Memo

START TIME: OVEN TEMPERATURE:

FINISH TIME:

Memo

QC3- Inspect Part Finish

Quality Control

Description

Silsam

**Run Hours** 

Draw

Number

Bh 10-01-13

#### **Dart Aerospace Ltd** W/O: **WORK ORDER CHANGES Approval Approval** STEP DATE PROCEDURE CHANGE By Qty Chief Eng / Date QC Inspector Prod Mar Part No: \_\_\_\_\_\_ PAR #: \_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_ Date: \_\_\_\_ Resolution: \_\_\_\_\_ Disposition: \_\_\_\_ QA: N/C Closed: \_\_\_\_ Date: \_\_\_\_ WORK ORDER NON-CONFORMANCE (NCR) NCR: **Corrective Action** Section B **Description of NC** Verification **Approval Approval** DATE STEP Sign & **Action Description** Initial Section A Chief Eng QC Inspector Section C Date Chief Eng Chief Eng

Page 6

December 14, 2009 1:10:45 PM

Required Date: 21/12/2009

Item ID:

D205-634-041

Accept



Setup Start

Stop



**Revision ID:** 

Item Name:

Replacement Skidtube

**Start Date:** 

14/12/2009

Start Qty: 1.00

Reg'd Qty: 1.00



Cust Item ID:

**Customer:** 

Reference:

Approvals:

Process Plan:

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Start

Run

Stop

Sequence ID/

Operation Work Center ID Description

Set Up/ **Run Hours** 

Draw Number Draw Plan Code Rev.

Accept Qty

Reject Qty

Reject Insp. Number Stamp

200

HandFinish

Hand Finishing

Memo

0.00

0.00

1-Install inserts & weamplates & Gaskets as per Dwg. D2580. Use a drop of

Sikaflex on insert holes before installing wearplates A/R DD Sikaflex-291 7/25/5

Sikaflex expire date:

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with

Sikaflex. Clean excess adhesive,

A/R 🗆 🗎 Sikaflex-291 Sikaflex expire date: \_\_/0/08

5-Wing Walk as per Dwg D2580 and QSI 005 4.4 Batch:

Bl 10-01-13 D.

W/O:			WO	<b>RK ORDER CHANGES</b>						
DATE	STEP	PRO	OCEDURE CHAN	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspector	
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Part No	):	PAR #:	Fault Cate	gory:N	CR: Yes	No <b>DQ</b>	A:	Date:		
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DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description  Chief Eng	Sign Date	& Sec	cation tion C	Approval Chief Eng		
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December 14, 2009 1:10:45 PM

Required Date: 21 2/2009

Item ID:

D205-634-041

Replacement Skidtube

Accept



Setup Start

Stop



Item Name: **Start Date:** 

**Revision ID:** 

14/12/2009

Start Oty: 1.00 Reg'd Oty: 1.00

**Cust Item ID:** 

**Customer:** 

Draw

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Start Run

Date: \_\_\_\_\_

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID

210

QC Quality Control Operation Description

QC5- Inspect part completeness to step on W/O

Set Up/ Run Hours

Draw Number Rev.

Plan Code

Accept Qty

Reject Qty

Number Stamp

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for

Foreign objects per QSI 024

0.00

0.00

220

Packaging

Packaging

Packaging

Memo

Identify and pack for shipping as per PPPD205-634-041 Location:

PPP Rev:

230

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

PPD 5/233 10-

MF 10-1-15

W/O:  DATE STEP PROCEDURE CHANGE By Date Qty  Part No: PAR #: Fault Category: NCR: Yes No DQA:  Resolution: Disposition: QA: N/C Closed:  NCR: WORK ORDER NON-CONFORMANCE (NCR)  DATE STEP Description of NC Section A Chief Eng Corrective Action Description Section B Chief Eng C									
W/O:			WO	RK ORDER CHANG	ES				
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Picklist Print												Page
December 14, 2009 1:	10:50 PM			-								
Work Order ID: 5458	5											
	-634-041 eplacement Skidtu	ibe							Start Date: 14/13 Start Qty: 1.00		Required Date	
Component Item ID/ Item Name	Rejescement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Rou'∉ Seq ID	Unit of Measure	Qty on	Remaining Qty To Pick	Qty	Date Issued	** Status
D2580-1  205 Skidtube bent detail		Manufactured	No			110	Each	7.0000	1.0000			
203 SANGLOOD COIN GOVERN					ation arehouse BS	<u>Loc</u> e 4500	<u>Oty</u>	Loc Code	19/12/1	7		
				LG			4				_	
					54120		2					

52215

<u>Warehouse</u>	Loc	<u>Oty</u>	Loc Code		
Location  Main Warehouse	B54500		1 p	9/12	.117
LG	<i>9</i> 2 (3	4			
54120		2			
54279		2			
Main Warehouse					
ST		3			
53540		1			
54121		2			
No	140	Each	156.0000	1.0000	

47

D2576-3

Manufactured

Step (maching detail)

	•	
Warehouse	Loc Qty	Loc Code
<b>Location</b>		
Main Warehouse		
ST	156	
43504	8	
46661	101	

Page 1

Duitro	Oopaoo								
W/O:			WO	RK ORDER CHANG	ES				
DATE	STEP	PRO	CEDURE CHAN	IGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No	):	PAR #:	Fault Categ	jory:	NCR: Yes	No DQA:		Date:	
	Re	esolution:	Disposition	ı:	_ QA: N/C C	losed:		Date: _	
NCR:			WORK ORDER NON-CON			₹)			
D.4TE	OTED	Description of NC		Corrective Action Secti		Verifica	tion	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	&   Section		Chief Eng	QC Inspector
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:									

#### **Picklist Print** Page 2 December 14, 2009 1:10:50 PM Work Order ID: 54585 Parent Item: D205-634-041 Parent Item Name: Replacement Skidtube Start Date: 14/12/2009 **Required Date: 21/12/2009** Start Qty: 1.00 Required Qty: 1.00 Comments: Ui & of Oty on Remaining Qty Date Primary Last Route Replacemente Mfg/ Bin Status Component Item ID/ Measure Hand **Oty To Pick** Issued Issued Item Location Location Seq ID Purch Item Name Item ID 363.0000 20.0000 140 Each D2579 Manufactured No Crossbolt Spacer Warehouse Loc Code Location Main Warehouse LG 241 4 51525 130 53780 107 54543 Main Warehouse ST 122 43988 46434 46956 2 47797 48272 2 71 51314 30 51315

D2855

Cap

Manufactured No

 Warehouse
 Loc Oty
 Loc Code

 Location
 55
 55

 50513
 1
 50770

 51539
 51

200

Each

55.0000

1.0000

1 fd 10-01-13

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W/O:			WORK ORDER	CHANGES				
DATE	STEP	PR	OCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector
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### **Picklist Print**

December 14, 2009 1:10:50 PM

Work Order ID: 54585

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:



No

Purchased

Start Date: 14/12/2009

Required Date: 21/12/2009

Page 3

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ · ··· Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Cry on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3-5A		Purchased	No			200	Each	2,027.000	2.0000	<b>.</b>		

Bolt

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
ST	2027	
100188	188	
105057 🗸	1835	
15205	4	

Each

2 BR 10-01-13 5,427.000 2.0000

AN960JD10L

Washer

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
ST	5427	
101291	16	
104885	153	
105793	236	
109632	268	
110985	4754	

200

2 bf 10-01-13.

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W/O:			W	ORK ORDER CHANG	GES					
DATE	STEP	PROCEDURE CHANGE				Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No:P		PAR #:	#: Fault Category: NC				lo <b>DQ</b>	<b>A</b> :	_ Date: _	
Resolution:			Disposition	Disposition: QA			QA: N/C Closed:			
NCR:			WORK ORD	ER NON-CONFORM	IANCE	(NCR)				
DATE	STEP	Description of NC Section A	Corrective Action Initial Action Descrip		Section B  on Sign &		Verification Section C		Approval Chief Eng	Approval QC inspector
		Section A	Chief Eng	Chief Eng		Date	Seci		Criter Ling	QC Inspector

#### **Picklist Print**

December 14, 2009 1:10:50 PM

Work Order ID: 54585

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:



Start Date: 14/12/2009

**Required Date: 21/12/2009** 

Page 4

Start Oty: 1.00

Required Oty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	i# ! Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	R≋maining Qty To Pick	Qty Issued	Date Issued	Status
ALS7-1032-130		Purchased	No			200	Each	2,080.000	50.0000			

Insert

Warehouse	Loc Oty	Loc Code
Location		
Main Warehouse		
ST	2080	
105855	16	
108606	52	
111529 /	688	
111779	313	

112772 113238

No

Purchased

1000 200 Each

11

1,661.000 50.0000

AN3C4A

**BOLT** 

Loc Code Loc Qty Warehouse Location Main Warehouse ST 1661 13 112314 112720 12 112724 112829 112991 74 113121 113226 990 113359 66 113422 500

#5 Bf 10-01-13. # /st 10-01-13.

50 Bl 10-01-13.

W/O:		WORK ORDER CHA	NGES				•
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
		•					
							<b>5</b> \
Dowt No.		DAD #	NOD: Va			D-1	<u> </u>

Part No:		PAR #: Fault Category:		NCR: Yes No DQA:	Date: _	
	Re	esolution:	Disposition:	QA: N/C Closed:	Date: _	
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DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector
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Status

December 14, 2009 1:10:50 PM

Work Order ID: 54585

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:

Carcponent Item ID/	Replacement	Mfg/
Iteri Name	Item ID	Purch

AN960C10L

Purchased

Manufactured



washer

NAS1149C0332R



Last

Location

Prim # y

Item Location

No

Start Date: 14/12/2009

**Required Date: 21/12/2009** 

Start Qty: 1.00

Qty To Pick Issued

Required Qty: 1.00

Issued

50 Bl 15-01-13.

Remaining \* Qty Date

500.0000 50.0000

Qty on

Warehouse	Loc Qty	Loc Code
<b>Location</b>		
OFFSHORE 113288		
FG 113000	100	
103585	100	
Main Warehouse		
ST	400	
112116	228	
112612	160	
112933	12	
20	00 Each	100.0000 1.0000

Route

Seq ID

Unit of

Each

Measure Hand

D3566-13

Gasket

Loc Qty Loc Code Warehouse Location Main Warehouse FP 98 15 83 Main Warehouse

2

1 /	bf (	10-00	· 13.

ST

45717 50265

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W/O:			W	ORK ORDER CHANGI	ES			
DATE	STEP	PRO	PROCEDURE CHANGE			Date	Qty Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No: PAR #:		PAR #:	Fault Cate	egory:	NCR: Yes	No <b>DQA</b> :	Date: _	
Resolution:			Disposition	on:	QA: N/C Cld	sed:	Date: _	
NCR:			WORK ORD	DER NON-CONFORMA	NCE (NCR	)		
DATE	STEP	Description of NC Section A	Initial	Corrective Action Section Action Description	on B Sign &	Verificat Section		Approval QC Inspector
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Picklist Print December 14, 2009 1.	:10:50 PM											Page 6
Work Order ID: 54585  Parent Item: D205-634-041  Parent Item Name: Replacement Skidtube  Comments:								tart Date: 14/1 Start Qty: 1.00		Required Date: Required Qty:		
Componen Letem ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	√ast Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty **- Issued	Date Issued	Status
D3566-5		Manufactured	No			200	Each	26.0000	1.0000			
Jasket				Wareho	use	Loc	<u>Oty</u>	Loc Code				
				Loca	ation							
				Main Wa	arehouse							
				FP	/		22		-		BL10-0	10
					53804		22		_		DK 1000	17/3.
				Main Wa	arehouse							
				ST			4					
					36113		1					
					46186 47318		1		_			
					51260		1					
D3566-1		Manufactured	No			200	Each	22.0000	2.0000			
Gasket												

Warehouse	Loc Qty	Loc Code	
<b>Location</b>			4
Main Warehouse			2 pf 10-01-13.
fp <i>544</i> %0	17		
52512	3		
53790	14		
Main Warehouse			
ST	5		
46349	1		
51218	1		and the second
51259	3		

W/O:		WORK ORDER C	HANGES				•
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No:	_ PAR #:	Fault Category:	NCR: Yes No	DQA:	Date:	
Resolution:		Disposition:	QA: N/C Closed	:	Date:	

NCR:		·	WORK ORDER NON-CONFORMANCE (NCR)						
		Description of NC Corrective Action Section B				Verification	Approval	Approval	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspecto	
		:							

December 14, 2009 1:10:50 PM

Work Order ID: 54585

D205-634-Parent Item:

Parent Item Name: Replace

Comments:

-041	
cement Skidtube	

Start Date: 14/12/2009

**Required Date: 21/12/2009** 

Start Qty: 1.00

Required Qty: 1.00

Component Item ID

Replacement Mfg/ Item ID Purch Bin Primary Item Location Last - Route Location

Seq ID

Unit of Measure

Qty on Hand

Remaining Qty Oty To Pick Issued Date Issued

1 Bl 10-01-13.

Status

Item Name D3564-11

Manufactured

Manufactured

200

Each

25.0000

1.0000

Wearshoe

Warehouse	Loc	e Qty	Loc Code	
<b>Location</b>				
Main Warehouse				
FP19		23		
52125		14		
53808		9		
Main Warehouse				
ST		2		
45823		1		
50112		1		
	200	Each	40.0000	1.0000

D3564-13



Wearshoe

Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
FP17 /	28	
51611	28	
Main Warehouse		
ST	12	
45409	2	

10

1 BR10-01-13.

46495

Dart	Aerospace	≥ Ltd

W/O:			WORK ORDER CHANGES					
DATE	STEP	PR	OCEDURE CHANGE	Ву	By Date Qty C		Approval Chief Eng / Prod Mgr	Approval QC Inspector
				;				
Part No	):	PAR #:	Fault Category:	NCR: Yes	No <b>DQ</b>	A:	Date: _	
	Resolution	)•	Disposition:	QA: N/C (	:losed:		Date:	

NCR:			WORK ORD	ER NON-CONFORMANO	E (NCR)			
		Description of NC	Corrective Action Section B		Verification	<b>A</b>	Ammanal	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector
					£			

December 14, 2009 1:10:50 PM

Work Order ID: 54585

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Manufactured

Comments:



Start Date: 14/12/2009

**Required Date: 21/12/2009** 

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Re acement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Roust. Seq III	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date state	Status
D3564-9		Manufactured	No			200	Each	22.0000	1.0000			



Wearshoe

Warehouse	Lo	c Oty	Loc Code		
<b>Location</b>					
Main Warehouse					1 2
FP19 /		20			-1 BK10-01-13.
53806		20			100000000
Main Warehouse					
ST		2			
44659		1			
45825		1			
	200	Each	25.0000	1.0000	

D3564-5

Wearshoe

Warehouse	Loc Qty	Loc Code
<b>Location</b>		
OFFSHORE		
FG	2	
34806	2	
Main Warehouse		
FP19	21	
51925	1	
53805 🗸	20	
Main Warehouse		
ST	2	
45824	1	
47433	1	

Bf 10-01-13.

•								
		WO	RK ORDER CHANGE	S				4
STEP	PRO	OCEDURE CHAN	IGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
					,			
:	PAR #:	Fault Categ	jory:	NCR: Yes	No <b>DQ</b>	<b>A</b> :	_ Date: _	
Re	solution:	Disposition	l:	QA: N/C C	losed:	· - · · · · · · · · · · · · · · · · · ·	Date: _	
		WORK ORDE	R NON-CONFORMA	NCE (NC	R)			
	Description of NC				Verifi	cation	Approval	Approvai
SIEP	Section A	Initial Chief Eng	Action Description Chief Eng		& Sect		Chief Eng	QC Inspector
								!
							-	
			(					
		:PAR #:  Resolution:  STEP Description of NC Section A	STEP PROCEDURE CHAN  PAR #: Fault Category  Resolution: Disposition  WORK ORDE  STEP Description of NC Section A Initial Chief Eng	STEP PAR #: Fault Category:  Resolution: Disposition:  WORK ORDER NON-CONFORMA  STEP Description of NC Corrective Action Section Section A Initial Action Description Chief Eng Chief Eng	PAR #: Fault Category: NCR: Yes  Resolution: Disposition: QA: N/C C  WORK ORDER NON-CONFORMANCE (NC)  STEP Description of NC	STEP PAR #: Fault Category: NCR: Yes No DQ Resolution: Disposition: QA: N/C Closed: WORK ORDER NON-CONFORMANCE (NCR)  STEP Description of NC	STEP PAR #: Fault Category: NCR: Yes No DQA: Resolution: Disposition: QA: N/C Closed:  WORK ORDER NON-CONFORMANCE (NCR)  STEP Description of NC	STEP PROCEDURE CHANGE By Date Qty Approval  PAR #: Fault Category: NCR: Yes No DQA: Date:  Resolution: Disposition: QA: N/C Closed: Date:  WORK ORDER NON-CONFORMANCE (NCR)  STEP Description of NC Initial Chief Eng Action Description Sign & Date Date:  Corrective Action Section B Sign & Date Date:  Chief Eng Corrective Action Section B Sign & Date Date:  Chief Eng Corrective Action Section B Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Sign & Date Date:  Normal Manual Chief Eng Corrective Action Description Date:  Normal Manual Chief Eng Corrective Action Description Date:  Normal Manual Chief Eng Corrective Action Description Date:  Normal Manual Chief Eng Corrective Action Date:  Normal Manual Chief Eng Corrective A

December 14, 2009 1:10:50 PM

Work Order ID: 54585

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:



Start Date: 14/12/2009

**Required Date: 21/12/2009** 

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name

Replacement. Mfg/ Item ID Purch Bin Primary Item Location Last Location

Route Seq ID

Usat of Measure Hand

Qty on Remaining Qty To Pick Issued

Oty

Date Status Issued

D2594-3

Manufactured

No

200

Each

498.0000 16.0000

I (ESTING INTE IND			
O-Ring, 205	Skidtu	be	

Warehouse	Lo	c Qty	Loc Code	
Location				
Main Warehouse				
FP		27		
51613		27		
Main Warehouse				
ST		471		
52562		471		
	200	Each	281.0000	16.000

16 Bf 10-01-B.

D2594-1



Manufactured



Plug.	205	Skidtube
1146,	200	Sitiatabe

Warehouse Location	Loc Qty	Loc Code	•
Main Warehouse FP 54643	121		16 pl 10-01-13.
54008	121		
Main Warehouse			
ST	160		
42221	16		
42807	92		
43884	3		
46435	2		
51527	9		
51757	38		

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W/O:				WORK ORD	DER CHANGES					,
DATE	STEP		PRO	CEDURE CHANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC inspector
						<u> </u>				
		:								
Part No	);		PAR #:	Fault Category:	NC	R: Yes	No DQ	<b>A</b> :	Date:	
	R	Resolution:		Disposition:	QA	: N/C (	Closed:		Date: _	

NCR:	NCR: WORK ORDER NON-CONFORMANCE (NCR)							
		Description of NC		Corrective Action Section E	3	Verification	Ammyoval	
DATE	STEP	Section A	Initial Chief Eng	Action Description  Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector



DESIG	**************************************	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHEC	KED.	APPROVED	DRAWING NO. REV. D
		#	D2580 SHEET 1 OF 3
DATE			TITLE SCALE
07.0	02.27		205 SKIDTUBE ASSEMBLY NTS
Α		96.09.16	NEW ISSUE
В		96.12.02	AS MANUFACTURED
С		98.08.26	REDRAWN, INCLUDED DEO 9094/9097
D		07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183



QTY -041	QTY -045	Part Number	Description
X	-045	D2580-041	SKIDTUBE ASSEMBLY
<del>^-</del> -	х	D2580-045	SKIDTUBE ASSEMBLY
	<u> </u>	B2000-045	GRIDTOBE AGGEMBET
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1.	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130	INSERT
		or AKS7-1032-130	
		or AKS4-1032-130	
		or AELS-1032-130	
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLI ED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK OR DEK
NO. 54.56.

#### **GENERAL NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- NSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:

SEE NOTES ON

PAGE 2 FOR D2580-041 AND PAGE 3 FOR D2580-045

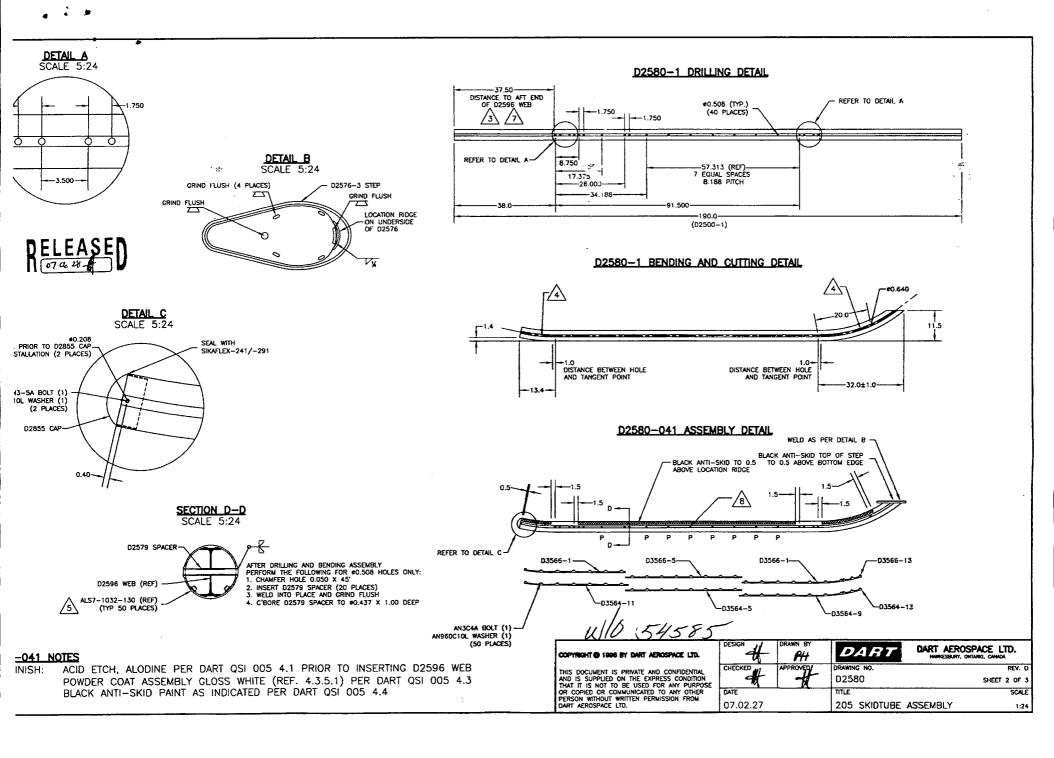
8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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Dart Ae	rospace Ltd	d .						• . ,
W/O:			WORK ORDER (	CHANGES			,	
DATE	STEP	PI	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
				-				
							· ·	
Part No:		PAR #:	Fault Category:	NCR: Yes	s No DO	A:	Date: _	
	Resol	lution:	Disposition:	QA: N/C	Closed:		Date: _	
NOD.			WORK ORDER NON-CON	FORMANCE (NO	R)			

NCR:		,	WORK ORD	ER NON-CONFORMANO	CE (NCR)			
		Description of NC	Corrective Action Section B			Verification	Approval	Ammayal
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspector
·								

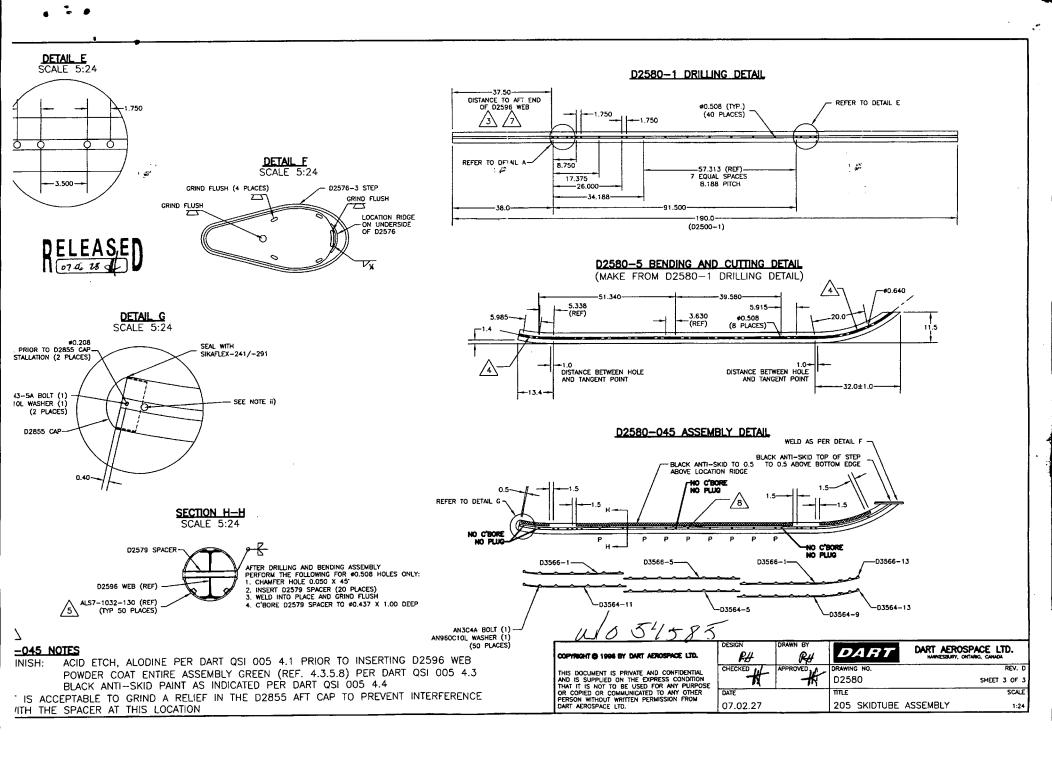


Dart Aerospace L	td
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W/O:		WORK ORDER CHANGES	WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
						•				
	.1				_1		<u> </u>			

Part No: _		_ PAR #:	Fault Category:	NCR: Yes No	DQA:	Date:	
	Resolution:		Disposition:	QA: N/C Closed	i:	Date:	

NCR:			WORK ORD	ER NON-CONFORMANO	E (NCR)			
		Description of NC		Corrective Action Section B			Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Chief Eng	QC Inspector
!								
							1	



Dart Ae	rospace	Ltd
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W/O:		WORK ORDER CHANGES							•		
DATE	STEP	1	PROCEDURE CHANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
	•										
						-					
				·							
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Part No:		PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
	Resolution:	*	Disposition:	QA: N/C Closed:	Date:

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
		Description of NC	Corrective Action Section B			Verification	Approval	Annroyal	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspector	
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NO. aal.

## AWS D17.1.2001 QUALIFICATION TEST RECORD

Name: Borday Elliott	
Job number: 54202	
Part number: Daos 634 041	
Description: 205 skid tube	
Welding Process: Tig[/] Mig[]	
Base materiel: Aluminian	
Current: AC[ ] DC[ ]	

# TEST REQUIREMENTS AND RESULTS

Visual: Penetration:	pass[] fail[] pass[] fail[]
<u>UNACCEPTABLE</u>	
Cracks: Undercut: Pin holes: Overlap (cold lap) Porosity (surface): Coloration:	pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[]
Qualifier (0)) Welder Boxelay ElliOt	Date of Test Coupon (9.12.17)  Date of Test Coupon (9.12.17)

The above named individual is qualified in accordance with AWS D17.1.2001 to weld